



DEPARTMENT OF THE NAVY  
NAVAL AIR SYSTEMS COMMAND  
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IN REPLY REFER TO

NAVAIRINST 5100.11  
AIR-4.1  
3 Sep 99

NAVAIR INSTRUCTION 5100.11

From: Commander, Naval Air Systems Command

Subj: RESEARCH AND ENGINEERING TECHNICAL REVIEW OF RISK  
PROCESS AND PROCEDURES FOR PROCESSING GROUNDING BULLETINS

Ref: (a) OPNAVINST 3500.39  
(b) NAVAIR 00-25-300  
(c) NAVAIRINST 5216.11B

Encl: (1) Engineering Technical Review of Risk Process and Procedures  
(2) AIR-4.0 System Safety Risk Analysis Matrix  
(3) Engineering Technical Review Considerations  
(4) Engineering Risk Assessment Questionnaire  
(5) AIR-4.0 Procedures for Processing Grounding Bulletins

1. Purpose. This document establishes policy, provides guidance, and assigns responsibilities for the coordination of engineering technical review of risk, and for the formulation of engineering recommendations related to the issuance of bulletins and flight restrictions. It is applicable when coordinating an engineering recommendation involving potential grounding of aircraft, prevention of the launch of missiles, or the denial of use of related support equipment or munitions.

2. Scope. This instruction applies to the Naval Aviation Systems TEAM, Assistant Commander for Research and Engineering, (AIR-4.0), personnel in their role as Level 2 Competency Managers, Assistant Program Executive Officers (APEOs), Assistant Program Managers, Systems and Engineering (APMSE), Integrated Program Team (IPT) members, and Fleet Support Team (FST) members.

3. Background

a. Operational Risk Management (ORM) is a systematic decision making process used to identify and manage hazards that endanger resources. Its purpose is to increase operational readiness by anticipating hazards and reducing the potential for loss, thereby increasing the probability for success. Reference (a) establishes ORM at all levels as an integral part of naval operations.

b. Periodically, potentially unsafe conditions arise that require immediate corrective action to prevent (further) loss of life, serious injury to personnel, and extensive damage to, or loss of property. Once an issue has been identified, it must be rapidly assessed to determine the risk associated with continued operations. The role of the APMSE is pivotal in coordinating the review of all the technical factors in making this risk assessment. This technical risk assessment

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and a recommendation for appropriate corrective action is provided to the Program Manager Air (PMA) and Naval Air Systems Command (NAVAIR) leadership for approval.

#### 4. Discussion

a. The urgency in dealing with these situations is to ensure safety of flight through implementation of flight restrictions or maintenance action before (further) loss of life, property, or mission effectiveness can occur. In order to restore safe operations in a timely manner, a consistent process must be implemented that will produce a well coordinated technical recommendation. Enclosure (1) outlines the overall process and related procedures to follow once a potentially hazardous situation arises.

b. A bulletin directs a one-time inspection to determine whether a given condition exists, and to specify what action is required if the condition is found. A bulletin that restricts flight operations, by requiring inspection prior to further flight or within the next ten flight hours, constitutes a Grounding Bulletin. If such action is indicated, this information must be rapidly communicated to fleet operators and senior naval leadership. The NAVAIR Technical Directives (TDs) System, reference (b), provides guidance and procedures for issuing bulletins. In addition, a Red Stripe memorandum must be released in conjunction with any Grounding Bulletin.

c. In such cases where a Grounding Action is considered an urgent requirement, but where no prescribed maintenance remedy has been developed, use of a "Flight Restriction" is authorized. Release of a flight restriction shall be accomplished, via a coordinated effort between: the affected PMA / Program Executive Officer (PEO), AIR-4.0, Systems Engineering Department (AIR-4.1), and the cognizant AIR-4.0 competency. Flight restrictions describe, to the maximum extent possible: the identified risk, the restriction compliance requirement (prior to next flight), actions underway to remedy or mitigate the risk, and an estimate of the anticipated restriction duration. Normally, the restriction is followed by a bulletin, when possible. It is imperative that the bulletin clearly references the flight restriction in the text of the message.

d. The purpose of the Red Stripe memorandum, as described in reference (c), is to convey an executive summary of the situation to the Chief of Naval Operations (CNO) and Commandant of the Marine Corps (CMC) and other senior naval leadership.

e. Naval Air Systems Command (NAVAIR), Systems Safety Engineering Division (AIR-4.1.10) employs a process to assess the risk associated with specific hazard and severity categories. A key element in understanding and managing the hazard is a risk assessment of the potential hazard. Risk assessment is that part of risk management that assigns a risk level to the hazard. This risk level is expressed in terms related to the operation of the platform or system in question. Risk level is a function of:

(1) frequency of occurrence of the hazard; and

(2) severity of the hazard.

The combination of these two factors forms the hazard environment that must be assessed. Frequency is expressed either in qualitative terms such as "remote", or in quantitative terms such

as probability of occurrence, or failure rate. Severity is expressed in terms of degree of injury, property damage, or effect on mission. Once these two parameters are defined, enclosure (2) provides the standardized matrix to be utilized when addressing potentially unsafe conditions.

f. The resultant four risk levels are as follows:

- (1) unacceptable;
- (2) undesirable;
- (3) acceptable with review; and
- (4) acceptable without review.

Although use of the matrix is inherently subjective, the process accepts data from the evaluation of inputs supplied by flight test results, Original Equipment Manufacturers (OEMs), analysis, laboratory results from Engineering Investigations (EIs), etc. Often, suitable data is not available to quantify frequency or severity, and a subjective analysis is required. In these cases the matrix still provides a consistent framework and a systematic approach to assessing and managing risk.

g. Enclosure (3) summarizes the engineering technical review considerations that should be evaluated, as applicable, during APMSE risk assessment of unsafe conditions. These considerations, in conjunction with the questions presented in enclosure (4), should form the basis of the input to enclosure (2). In turn, the resulting risk level should be used as the basis for the engineering technical recommendation with respect to issuing a bulletin.

5. Policy. The AIR-4.1 APMSE for the affected aircraft platform shall lead the coordination efforts of appropriate AIR-4.0 personnel to establish the engineering position concerning the technical risk of potentially unsafe conditions.

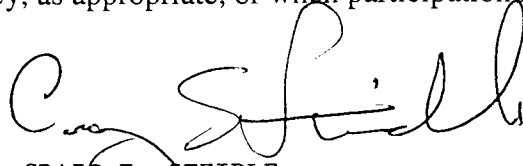
6. Action

a. The APMSE shall conduct a disciplined technical review of all relevant technical factors to support an informed decision whether or not to issue a bulletin, and if so, which type. Enclosures (3) and (4) are provided to help the APMSE gather all pertinent facts in an organized fashion. This information will help determine the appropriate frequency and severity criteria for use with enclosure (2). An assessment that yields an "Unacceptable" risk level will usually prompt an engineering recommendation to issue a bulletin. An "Undesirable" risk level will normally result in an engineering recommendation for either a bulletin or other appropriate remedial/mitigating action. The procedures for processing Grounding Bulletins, when warranted, are provided in enclosure (5).

b. Additionally, the APMSE shall ensure that appropriate notification of key personnel is performed in an expeditious manner. A list of principal points of contact (POCs) is presented as part of enclosure (5). As soon as a reported unsafe condition is known, the APMSE shall notify the Assistant Commander for Research and Engineering Department (AIR-4.0), Director of Operations (AIR-4.0B), and AIR-4.1. Other POCs shall also be informed when the item of

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interest is the responsibility of that competency, as appropriate, or when participation from that competency will be required.



CRAIG E. STEIDLE  
Vice Commander

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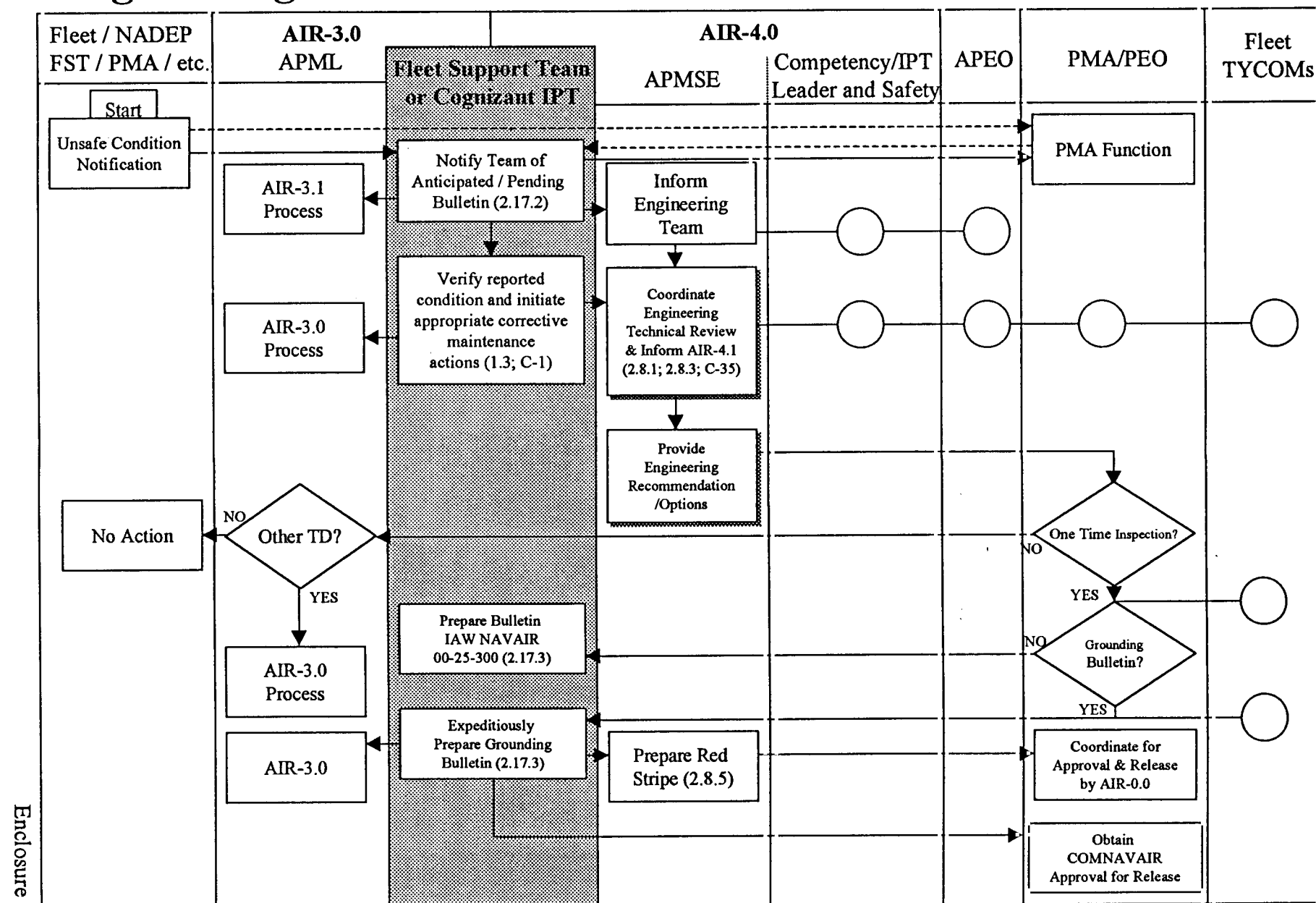
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# Engineering Technical Review of Risk Process and Procedure



Enclosure (1)

( . . . . ) refers to Appendix C of reference (b)

----- denotes optional communication path

# AIR-4.0 SYSTEM SAFETY RISK ANALYSIS MATRIX

HAZARD CATEGORIZATION		SEVERITY			
		CATASTROPHIC (1)	CRITICAL (2)	MARGINAL (3)	NEGLIGIBLE (4)
F R E Q U E N C Y	FREQUENT (A) = or > 100/100K flt hrs	1	3	7	13
	PROBABLE (B) 10-99/100K flt hrs	2	5	9	16
	OCCASIONAL (C) 1.0-9.9/100K flt hrs	4	6	11	18
	REMOTE (D) 0.1-0.99/100K flt hrs	8	10	14	19
	IMPROBABLE (E) = or < 0.1/100K flt hrs	12	15	17	20

**UNACCEPTABLE**

CNO / TYCOM / Fleet Acceptance  
1-5 HIGH SAFETY RISK

**ACCEPTABLE WITH REVIEW**

PMA Acceptance  
11-17 LOW SAFETY RISK

**UNDESIRABLE**

PEO / AIR-1.0 Acceptance  
6-10 MEDIUM SAFETY RISK

**ACCEPTABLE WITHOUT REVIEW**

IPT / FST / SSWG Acceptance  
18-20 VERY LOW SAFETY RISK

Severity is the worst credible consequence of a hazard in terms of degree of injury, property damage or effect on mission defined below:

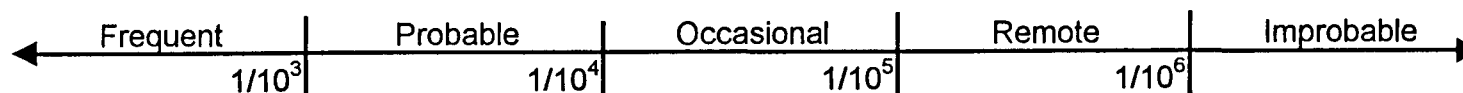
**Catastrophic** - Class A ( damage > \$1M / fatality / permanent total disability)

**Critical** - Class B (\$200K < damage < \$1M / permanent partial disability / hospitalization of 5 or more personnel)

**Marginal** - Class C (\$10K < damage < \$200K / injury results in 1 or more lost workdays)

**Negligible** - All other injury/damage less than Class C

Probability of occurrence for discreet events may replace Frequency based upon the chart below:



Enclosure (2)

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# Engineering Technical Review Considerations

Ensure accurate technical content which does not degrade safety. Includes evaluation of impact on:

- performance
- airworthiness
- structural limits
- service life
- weight and balance
- reliability,  
maintainability,  
availability
- combat survivability
- electromagnetic emissions
- ozone depletion
- human factors
- shipboard compatibility
- other environmental  
factors

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## Engineering Risk Assessment Questionnaire

This document is provided as a ready reference for engineering personnel who are performing a technical review associated with an anticipated or pending bulletin. It compliments and supplements enclosure (1), enclosure (5), and AIR-4.0 procedures for processing Grounding Bulletins.

The items and questions presented below provide a compilation of relevant factors from incidents that resulted in Grounding Bulletins and/or Red Stripe memoranda during the past several years. They are meant to stimulate thought; they are not test questions. Each incident is unique in nature; thus, it may require consideration of additional factors.

The judicious use of this document will aid in determining the level of risk associated with continued flight operations. It should supply the data to feed enclosure (2) that will form the basis for the engineering recommendation concerning whether or not to issue a bulletin, either grounding or non-grounding.

### Questions to Ask/Answer (if possible)

	Yes	No	N/A
<u>I. What happened?</u>			
a. Did a mishap result?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(1) If so, are there survivors who can provide assistance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) Any "MAYDAY" or other radio transmissions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Are there any known witnesses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Is hardware available for Engineering Investigation (EI)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Who provided the information on the situation/mishap?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(1) Is this a credible source?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) Are there any 'experts' who can verify the report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>II. What was the activity/phase of operation?</u>			
a. On the ground/ship deck?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Deployed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. During maintenance/depot/rework?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. During operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Taxi/ground turn-up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Take-off or landing roll?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## (1) In-flight

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| (a) Maneuvering?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Aggressive?                      If so, how many Gs?                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Airways environment?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Visual Meteorological Conditions (VMC)<br>or Instrument Meteorological Conditions (IMC)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (e) Environmental/weather factors?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

a. How was it discovered?

- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| a. Maintenance Inspection?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Scheduled or unscheduled?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Quality Assurance (QA)– vendor/manufacturer/installer<br>/acceptance?          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Engineering Investigation?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (1) If not, has one been ordered?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) How long has the fleet been operating since the part<br>was submitted for EI? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Why was the part (originally) submitted for EI?                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Proposed bulletin in work?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4) Since when?                      How long in work?                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

IV. What else is known?

- |   |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| a. Is hardware available?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Is there a failed or broken part or component?                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Is the cause of failure known?                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Was failed part the cause or effect of the original event?        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Is the part or component life-limited?                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (1) Is life (or number of cycles) tracked?                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) If so, how much/many on this part?                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Is this close to life limit?                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4) Has life limit been changed or being evaluated for<br>change? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| e. If unlimited life, part or component?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (1) Any way to determine approximate life or cycles?                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) Should component be life limited?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Is life limit being evaluated for change?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Other known similar occurrences?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If so, how many hours/cycles since last failure?                                     |                          |                          |                          |
| g. Part produced by Original Equipment Manufacturer or other source?                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (1) New source? How long/many parts produced?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) First Article Test passed?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Qualified Second Source?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. How many parts (or lots of parts) could be affected?<br>Define the Population.    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (1) Where are they? Find them!   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) Do other systems use the same parts?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) Other Department of Defense (DoD) users?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Does the hazardous condition or design apply to or affect other aircraft/systems? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

V. Proposed Bulletin details

- a. Should a logbook only inspection be performed?
- b. What level of maintenance (organization/intermediate/depot) is required to perform action?
- c. What type skill (Military Occupation Specialty/rating) is required to perform action?
- d. How many people/man-hours will be required to perform the action?
- e. Number of aircraft panels/ disassembly necessary to access the part.
- f. Do flight controls have to be disconnected to accomplish inspection?
- g. What is the size of the suspect population?

VI. Miscellaneous considerations

- a. Number and location of spares available?
- b. Is this a breakout component, perhaps procured by another service?
- c. Was design specification changed to commercial standards?
- d. Were production or inspection processes changed during manufacture/rework?
- e. Was aircraft/system subjected to unusual conditions (ground handling mishap, C-5 or small deck transoceanic transportation, extreme temperatures, maintenance mishap, etc.)?
- f. Was aircraft unused for extended period of time (mod program, crash damage repair,

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hangar queen, etc.)?

- g. Could human error cause improper installation, rework, or manufacture?
- h. Do we lack of confidence in the history, maintenance or material condition of an aircraft, squadron, contract maintenance, rework, etc.?
- j. Number and location of deployed units with suspect conditions?
- k. What impact will this Bulletin have on them? Near term? Long term?
- l. Has the OEM been informed, and queried?
- m. When will the entire situation be resolved/corrected?
- n. How much will resolution cost? Who pays the bill?
- o. Who, if anyone, is responsible?
- p. How can a repeat be prevented?
- q. Ensure a repeat can not occur!
- r. All of this also applies to missiles, support equipment, and munitions!
- s. If the recommendation is to ground aircraft/system, ensure criteria has been established to return to flying status.
- t. Is the design under investigation applicable to any other aircraft system?

## AIR-4.0 Procedures for Processing Grounding Bulletins

1. The NAVAIR Assistant Commander for Logistics (AIR-3.0) has overall responsibility for the NAVAIR TDs (reference (b)). AIR-4.0 has cognizance over, and is responsible for, TD technical content. The Head, Logistics Management Department (AIR-3.1) oversees the TD processes, including the bulletin process. A bulletin is a TD that directs a one-time inspection to determine if a given condition exists, and specifies what action shall be taken if the condition is found. Bulletins that require compliance prior to next flight, or within the next 10 flight hours are called Grounding Bulletins. A Grounding Bulletin must be accompanied by official notification to the CNO, CMC, and other senior Navy officials, which is accomplished via Red Stripe memorandum, as per reference (c). Normally, the IPT Lead for the effected hardware drafts the Red Stripe memorandum for the PMA, and the Assistant Program Manager Logistics (APML) is responsible for drafting and verifying the bulletin. The procedures that follow support the process flow presented in enclosure (1).
2. Maintaining flight safety is the paramount consideration during the AIR-4.0 technical review. A decision must be made by the PMA, based on a hazard risk assessment, that a Grounding Bulletin is required. The AIR-4.0 technical review of risk and the resultant recommendation that feeds this decision process are discussed in the basic instruction and enclosures (2), (3) and (4). Enclosure (4) is an Engineering Risk Assessment Questionnaire that solicits information to improve the understanding of the problem, and facilitate the technical review of risk. This review of risk forms the basis of the engineering recommendation provided to the PMA.
3. Once it is determined that a Grounding Bulletin is required, the APML, in concert with the fleet support team, prepare a draft Grounding Bulletin. The Grounding Bulletin is the communication that alerts Fleet operators and maintainers of the potential unsafe condition. The term "Draft" is applied to the initial version of TD that has not yet been verified (see paragraph 9, below). Draft TDs may be submitted to NAVAIR for information, review, and/or comment but shall not be distributed to activities outside NAVAIR without approval of the APML. The term "Proposed" is applied to TDs submitted to NAVAIR for verification and/or review and approval. Proposed bulletins are normally sent to a selected Commander Naval Air Force, Atlantic (COMNAVAIRLANT), Commander, Naval Air Force, Pacific (COMNAVAIRPAC), Commander, Naval Air Reserve Force, (COMNAVARESFOR), Chief of Naval Air Training (CNATRA) or NAVAIR operating activity to be verified for correctness. They remain proposed bulletins until they are approved and issued. Bulletins are approved when they are released for compliance.
4. Grounding Bulletin messages shall be prepared in naval message format following NTP-3 (Naval Telecommunications Users' Manual). Generally, APML or FST personnel will prepare the Grounding Bulletin naval message. It is recommended that a person qualified to prepare a naval message be available to assist as required.

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5. Controlling the communication process both vertically and horizontally is essential for effectively issuing a Grounding Bulletin. The following subparagraphs provide a list to be initialed when the notification has been accomplished. Normally the:

a. PMA/Level 1 IPT Leader/Level 2 IPT Leader shall notify:

- (1) The appropriate PEO, his/her Deputy, or Executive Assistant \_\_\_\_\_
- (2) Commander, Naval Air Systems Command (COMNAVAIRSYSCOM)  
(AIR-00), (via his Executive Assistant (EA), @ (301) 757-7825) \_\_\_\_\_
- (3) CNO (Requirements Officer), for type aircraft \_\_\_\_\_
- (4) CMC (Requirements Officer), if United States Marine State Marine  
Corps (USMC) aircraft involved \_\_\_\_\_
- (5) Original Equipment Manufacturer (OEM) \_\_\_\_\_
- (6) Foreign Military Sales (FMS) and allied customers \_\_\_\_\_
- (7) United States Air Force (USAF), USA, United States Coast Guard  
(USCG), as applicable \_\_\_\_\_

b. APML/cognizant Level 2 IPT Team Leader/logisticians shall notify:

- (1) AIR-3.0, via AIR-3.0B, @ (301) 757-8449 \_\_\_\_\_
- (2) AIR-3.1 @ (301) 757-8206/8201 \_\_\_\_\_
- (3) The appropriate APEO \_\_\_\_\_

c. APMSE/cognizant Level 2 IPT Team Leader/IPT Systems Engineer shall notify:

- (1) AIR-4.0, via AIR-4.0B, @ (301) 342-3429 \_\_\_\_\_
- (2) AIR-4.1 @ (301) 342-4090/4091 \_\_\_\_\_
- (3) The appropriate APEO \_\_\_\_\_
- (4) AIR-4.3 @ (301) 342-0280 (if flight restrictions are involved) \_\_\_\_\_

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## (5) The appropriate 4.0 Competency Leader(s) \_\_\_\_\_

Systems Engineering	AIR-4.1	(301) 342-4090
Cost	AIR-4.2	(301) 342-2191
Air Vehicle	AIR-4.3	(301) 342-0280
Propulsion and Power	AIR-4.4	(301) 757-0410
Avionics	AIR-4.5	(301) 342-0064
Crew Systems	AIR-4.6	(301) 342-9196
Weapons and Target	AIR-4.7	(760) 939-1468
Sup Equip A/C Launch & Recovery Equip	AIR-4.8	(732) 323-7213
Training	AIR-4.9	(407) 380-8337
Test & Evaluation	AIR-4.11	(301) 342-6758

(6) Depot Research &amp; Engineering (R&amp;E) Site Managers \_\_\_\_\_

(7) COMNAVAIRPAC (Note 1) \_\_\_\_\_

(8) COMNAVAIRLANT (Note 1) \_\_\_\_\_

(9) COMNAVAIRSYSCOM (Aircraft Controlling Custodian, AIR-5.0D,

(301) 342-5900) \_\_\_\_\_

(10) Commander, Marine Forces Atlantic (Notes 1 &amp; 2) \_\_\_\_\_

(11) Commander, Marine Forces Pacific (Notes 1 &amp; 2) \_\_\_\_\_

(12) CNATRA (Aircraft Controlling Custodian @ (904) 452-2154) \_\_\_\_\_

(13) Commander Naval Air Reserve Force (COMNAVAIRESFOR)

(Class Desk @ (504) 678-1221, if United State Naval Reserves (USNR)

operates Type/Model/Series (T/M/S) \_\_\_\_\_

(14) CG 4TH MAW (Notes 1 &amp; 2) \_\_\_\_\_

(15) CNO and/or CMC (Code A) for special aircraft \_\_\_\_\_

(16) AIR-00EA will normally communicate with the CNO/CMC office \_\_\_\_\_

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NOTES:

1. Appropriate T/M/S Class Desk

Example: SH-60B

Type is H (Helicopter)

Model is B

Series is H-60

2. If USMC operates T/M/S

6. Concurrent with the notification process, the cognizant Level 2 IPT/APMSE shall prepare a Red Stripe memorandum. The "Red Stripe" memorandum is the vehicle for AIR-00 to communicate the nature of the problem, operational impact and solution to CNO (N88) and CMC (DCS AIR). This document contains information exempt from mandatory disclosure under the Freedom of Information Act. The Red Stripe will be required to be updated at intervals determined by AIR-00 until corrective action is complete or further reporting is deemed not to be necessary.

7. The APMSE/IPT Leader shall inform Systems Safety Engineering, AIR-4.1.10 at (301) 342-3961 Ext. 111, of the situation and planned action.

8. The APML and APMSE, in concert with the cognizant Levels 1 and 2 IPT Leaders/cognizant FST personnel, and the appropriate Level 2 AIR-4.0 Competency Leader, shall review the proposed Grounding Bulletin and resolve any technical, logistical or operational problems associated with the proposed bulletin as rapidly as possible. Coordinate as necessary with the OEMs, Naval Inventory Control Point (NAVICP), FMS and/or allied customers. It is important to note the availability of replacement parts, availability of required support equipment (particularly Non-Destructive Inspection (NDI)) equipment and/or standards), technical data, bulletin verification, formation/scheduling of Navy or contractor field teams (when required.), etc. Coordinate with Type Commanders (TYCOMs) and Aircraft Controlling Custodians (ACCs) class desks for notification and to ensure prompt bulletin "verification". The enclosure (4) questionnaire, when completed, should assist in these efforts.

9. Supplemental discussions with AIR-3.0, AIR-3.1, AIR-4.0, AIR-4.0B, AIR-4.1, APEO(s), PEO or Deputy Commander for Acquisition and Operations (AIR-1.0) and the PMA are normally conducted prior to briefing AIR-00. The Executive Assistant to the Commander AIR-00EA will normally communicate with the CNO/CMC office. When the action plan is relatively firm, PMA, assisted by the program APMSE, APML, and AIR-4.0B/4.1, 3.1, and the appropriate AIR-4.0 Competency leader, shall coordinate a decision for briefing AIR-00. If the Red Stripe memorandum is prepared, and the envisioned plan of action is supported by AIR-00, the Red Stripe should be discussed, and ideally signed, at the briefing to AIR-00. If not, the (revised) Red Stripe must be presented to AIR-00 for signature, at a later time.

10. The Grounding Bulletin drafters (APML/cognizant FST/Level 2 IPT) obtain bulletin number(s) from the Naval Air Technical Data and Engineering Service Command (NAVAIRTECHDATAENGSEVCOM), Technical Directives Management. The APML normally assigns a title to the bulletin TD. Although not applicable to bulletins, "validation" is

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an engineering process by which the originator of a change (not an inspection) validates the change instructions by accomplishing all required tasks on applicable systems to ensure the modified items function as intended. "Verification" is applicable to bulletins. Verification is a TD installation/compliance process where a naval activity tests an unissued TD for accuracy and adequacy. Verification is the actual installation of change kits, incorporation of changes, or performance of inspections by personnel of the prescribed skill, using a proposed TD, support equipment and special tools in the operating environment of the lowest authorized compliance maintenance level.

11. The cognizant Level 2 IPT/FST (with oversight of the APML) shall prepare a proposed bulletin which is submitted to NAVAIR, and subsequently released by the PMA for verification. Preparation of the proposed bulletin for verification should not be delayed because of absence of bulletin number(s) or non-receipt of required concurrence from AIR-3.0, AIR-4.0, and CNO/CMC representatives.

12. With the concurrence of AIR-3.0 and AIR-4.0, the PMA shall release the proposed bulletin to a TYCOM or ACC to be verified. This release process should be accomplished as rapidly as practical. Using the fastest practical means, such as email, facsimile or naval message.

13. In very urgent circumstances, it may be necessary to release the proposed bulletin for compliance without prior verification. This generally occurs only when the process is very simple (like a logbook check) or all of the procedures are contained in previously verified manuals. When this is required, the APML shall obtain a verification waiver from AIR-3.1. When verification is waived, the APML/cognizant FST shall include in the "Related Instructions" section of the bulletin instructions for a specified TYCOM or ACC to conduct verification as the first compliance action, and to notify NAVAIR and all others concerned of any critical required changes.

14. After verification, the cognizant Level 2 IPT/FST (with oversight of the APML) shall incorporate the verification comments and prepare the bulletin. If verification changes are significant, the APML and the APMSE shall hand carry the revised bulletin to AIR-3.0 and AIR-4.0 for their concurrence prior to submitting it to the PMA for release.

15. AIR-3.0 is responsible for final release of the bulletin. However, if necessary, the PMA or appropriate field activity may release the bulletin after obtaining AIR-00 approval.

16. Cognizant Level 2 IPT/FST shall ensure the released message (bulletin) is delivered expeditiously to the supporting mail room or communications center and promptly transmitted. The Date Time Group (DTG) of the outgoing message should be requested, and provided to the TYCOM Class Desks/Duty Officers and the bulletin originator by telephone.

17. If not accomplished earlier, the Red Stripe memorandum must be approved and signed by AIR-00, and distributed, following reference (c), by AIR-00EA.